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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,730	02/18/2004	Tumay O. Tumer	NOVA-012-C	2086
28892	7590	11/26/2004	EXAMINER	
SNIDER & ASSOCIATES P. O. BOX 27613 WASHINGTON, DC 20038-7613			LE, DINH THANH	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 11/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/779,730	TUMER ET AL.	
	Examiner	Art Unit	
	DINH T. LE	2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-53 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 21-53 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/18/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

The specification has been checked to the extent necessary to determine the presence of all possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections

Claim Rejections - 35 USC § 112

Claims 21-53 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Correction or clarification is required.

In claim 21, the recitation "said readout channels" on line 5 and "said processed signal" on line 12 lacks antecedent basis. The recitation "an amplifier" on line 8 and "one or more input signals" on line 7 is confusing because it is unclear if these are additional "amplifier" and "one or more input signals" or further recitation of the previous claimed "amplifiers" on line 3 and "signals" on line 4. The same is true for reciting "input signal" on line 4 of claim 35.

In claim 22, the description of the present invention is incomplete because the switching circuit is not connected to anything. Thus, the claimed switching circuit may not perform the recited function. The same is true for reciting "comparators" in claim 29, "control and setting circuit" in claim 47 and "circuitry" in claim 53.

In claim 24, the recitation "said charge sensitive amplifier" lacks antecedent basis. It is unclear where the sensitive amplifier comes from and if this is additional "amplifier" or further

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recitation of the previously claimed "amplifier" on line 8 of claim 21. The same is true for reciting "said selected signal" in claim 25.

In claim 25, the recitation "amplifier" on line 2 is confusing because it is unclear if this is additional "amplifier" or a further recitation of the previously claimed "amplifier" in claim 21.

In claim 30, it is unclear what the "mixture of such comparators" is.

In claim 31, it is not understood what the "energy band" is and how the comparators can have the energy band.

In claim 33, it is unclear how an output can be "multiplexed" since no means for providing the multiplexing function is recited in the claim.

In claim 34, the recitation "said data readout integrated circuit" lacks antecedent basis. The same is true for reciting "said data outputting means" in claims 35 and 39, "said trigger signal" on line 4 of claim 36, and "said input charge sensitive amplifier" in claim 42.

In claim 44, it is unclear where the "peak hold circuit output" on line 5 comes from. The same is true for claim 45.

In claim 48, the recitation "can be" is indefinite because it does not positively recite the claimed invention. The same is true for claims and for reciting "may" in claims 50 and 52.

In claim 51, it is not understood how the outputting means can use the sparse readout capability.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686

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F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 21-53 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 670812. Although the conflicting claims are not identical, they are not patentably distinct from each other because both inventions disclose a readout circuit comprising:

- means for receiving one detector signal;
- a charge sensitive amplifier;
- a processing circuit;
- a means for outputting said readout channels;
- a polarity switching circuit;
- a gain stage;
- a shaper amplifier;
- a differentiator circuit; and
- a peak and hold circuit;

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 21, 24, 35, 40-43, 47 and 51 are rejected under 35 USC 102 (b) as being anticipated by Tumer (US 5,943,388).

Tumer discloses a readout circuit in Figures 2a-2b comprising:

- a means (17) for receiving one or more input signals;
- an amplifier (18) coupled said input for integrating said one or more input signals and outputting an amplified signal;
- a processing circuit (19) for processing the said amplifier output,
- a means (20, 21) for outputting said processed signals responsive said input signals.
- a control and setting circuit (23);
- a gain stage (33) coupled to said charge sensitive amplifier (18); and
- wherein said data outputting means outputs a readout signal for at least one channel of said plurality of integrated circuit channels

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DINH T. LE whose telephone number is (571) 272-1745. The examiner can normally be reached on Monday-Friday (8AM-7PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TIMOTHY CALLAHAN can be reached at (571) 272-1740.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Dinh Le', with a long horizontal flourish extending to the right.

DINH LE
Primary Examiner